

What is claimed is:

1. A packet communications apparatus for transmitting a message sent from a caller to a callee, comprising:

a processing part having at least one of two function;  
5 one for converting and another for erasing at least part of the message sent by the caller upon caller's request; and

a control part for determining whether at least the part of the message should be converted or erased or not,

wherein based on the result of determination at the control part, at least the part of the message is converted  
10 or erased at the processing part.

2. A packet communications apparatus according to claim 1, wherein at least the part of the message to be converted or erased is at least one of:

15 (1) a part identifying a user on a caller side domain in a SIP message header on an IP packet payload containing the SIP message;

(2) a part identifying a caller's domain in a SIP message header on an IP packet payload containing the SIP  
20 message;

(3) a part of a Via tag in a SIP message header on an IP packet payload containing the SIP message;

(4) a part identifying a Call-ID's domain in a SIP message header on an IP packet payload containing the SIP  
25 message; and

(5) a part identifying a UserID in a SIP message body on an IP packet payload containing the SIP message.

3. A packet communications apparatus according to claim 1, wherein the contents of the message, when received,  
5 are analyzed and with detection of a given character string or header, if any, as a start, at least the part of the message is converted or erased at the processing part.

4. A packet communications apparatus according to claim 3, wherein the given character string is a series of  
10 numeric characters filled in the first three digits of a telephone number.

5. A packet communication device according to claim 4, wherein the given character string is a series of numeric characters filled in the first three digits of a telephone  
15 number and a UserID guessed from the telephone number is sent with the first three numeric characters deleted to another apparatus storing telephone numbers and UserIDs, and the first three numeric characters are removed at message sending.

20 6. A packet communications apparatus according to claim 3, wherein the given header is a SIP message header and with detection of an extended header in the SIP message header, if any, as a start, at least the part of the message is converted or erased at the processing part.

7. A packet communications apparatus according to claim 1, comprising tables for containing both of the unconverted and converted contents of at least the part of the message.

5           8. A method for making an IP call comprising the steps of:

checking the SIP message for any request for Anonymous Call;

performing at least one of operations, modification  
10 and erasure, on at least the part of the SIP message if the request is detected; and

sending the SIP message processed as described above.

9. A method for making an IP call according to claim 8, further comprising the steps of:

15 performing the modification operation on at least the part of the SIP message if the request for Anonymous Call is detected; and

creating a table containing the correspondence between the unconverted and converted contents of the  
20 message.

10. A method for making an IP call further comprising the steps of:

modifying an original caller's address to its temporary address at the initiation of conversation; and

discarding the temporary address at the end of the conversation.

11. A method for making an IP call according to claim 10, further comprising the steps of:

5       determining whether a random address should be created or not;

obtaining an IPv6 address prefix from a router in the same subnet if the random address is created;

creating an interface ID;

10       creating a temporary IP address from the IPv6 address prefix and the interface ID;

creating a modified entry or a new registration entry of user information using the temporary IP address and a UserID to register the user's account; and

15       canceling account registration and discarding the IP address at the end of the conversation.

12. A method for making an IP call according to claim 10, wherein the address is obtained from an external server to use as the caller's address in the case of making an IP  
20       call through IPv4.

13. A method for making an IP call according to claim 10, wherein the caller's address is the IPv6 address and the address with random values filled is created as the temporary address.

14. A method for making an IP call according to claim  
10, wherein the caller's address is the IPv6 or IPv4 address,  
the address is first received from an address distribution  
server in conjunction with message sending, and the address  
5 is discarded at the end of the conversation.

15. A method for making an IP call according to claim  
10, wherein the caller's address is the IPv6 address and two  
different addresses, one for message sending and another for  
message receiving are set, the former being discarded at the  
10 conversation once and immediately after then, a new one  
being created while the latter being created at message  
sending and discarded at the end of the conversation.